

**VISION PAPER
FOR
PUGET SOUND AREA TRANSMISSION RELIABILITY
TO
OBVIATE PSANI CURTAILMENTS AND DISPUTES**

INTRODUCTION

The north Puget Sound area is the largest population and employment center of the Pacific Northwest. The area is served primarily by Puget Sound Energy, Seattle City Light and Snohomish Public Utility District. It also includes ALCOA's Intalco plant at Ferndale, which BPA serves as a direct service industry (DSI). As described in more detail in the attachment, for the last six years the Puget Sound area has also been the route for much of BPA's return of the Canadian Entitlement.

The return of the Canadian Entitlement is the final chapter in a multi-decade Treaty arrangement that benefited both British Columbia and all of us in the Pacific Northwest who receive power from the Columbia River. The Treaty is a great success story of working together for everyone's mutual benefit.

In 1996, BPA made the decision not to build a new transmission line to Oliver, BC as called for in the Treaty. BPA believed that this would save TBL customers money and that this portion of the Canadian Entitlement could be returned via Puget Sound without affecting local reliability. However, the EIS committed BPA to accelerating construction of more cross-Cascade transmission to as "early as 2005."

In this Programs in Review process, TBL has proposed to hold operating and capital spending to levels which require only a small increase (1.06%) for the 2006-07 Rate Case Revenue Requirement over the 2004-05 Rate Case Revenue Requirement. However, one project TBL proposed to drop is the Echo Lake to Monroe line. This project would upgrade to 500 kV the remaining segment in BPA's Puget Sound grid that is a constraint. TBL has thought that this line was no longer needed because certain new generation proposed in the area has been cancelled, but recent technical analysis (described below) shows it may still be needed as a long-term solution to the Puget Sound transmission reliability problems. Because of this the project should remain a viable project. There may be other long-term alternatives that should also be considered as potential solutions to this issue.

Puget, Seattle and Snohomish have been meeting with TBL for several months to identify solutions for these curtailment problems. We have made progress on a

number of technical issues including identifying upgrades that should be made to our respective systems. We have not yet figured out how to fund everything that is needed but we ask that PIR not limit BPA's ability to join with the local entities to work together on solving this important reliability issue. Interim efforts to avoid blackouts should be relatively small costs as we work together to have reliable infrastructure for the Puget Sound area. All involved in this effort hope that we can find mutually agreeable solutions that maintain the reliability of the transmission system in the Puget Sound area while equitably addressing the cost and risk associated with the returning energy to British Columbia as part of the clear benefits of the Columbia River Treaty. The following paragraphs describe the measures that we believe need to be taken to maintain the reliability of the transmission system in the Puget Sound area.

TRANSMISSION SYSTEM MODIFICATIONS TO ALLEVIATE NI CONGESTION

The Puget Sound Area Study Group ("PSASG"), which is a subcommittee of the Northwest Transmission Assessment Committee ("NTAC") of the Northwest Power Pool ("NWPP"), is identifying two portfolios to help alleviate NI transmission congestion. These portfolios, together with several additional measures described below, are envisioned to help BPA to fulfill its transmission obligations and to alleviate PSANI curtailments and disputes with respect thereto, both over the near term and in the longer term. It should be noted that the studies and other development of these portfolios by PSASG are still ongoing and that there may well be additional refinements or modifications to these portfolios in the upcoming weeks.

1. Long-term Measures: NTAC Portfolio 2 - Echo Lake-Monroe 500 kV Line

NTAC Portfolio 2 consists primarily of the development of a BPA Echo Lake-Monroe 500 kV line. The development of this line was included as one of BPA's G-20 projects. Development of this line will require a number of years, but will substantially alleviate NI congestion caused or exacerbated by Canadian Entitlement return.

2. Near-term Measures: NTAC Portfolio 1 – Transmission Facility and RAS Upgrades

Substantial relief of NI congestion can be attained in the near term through transmission system modifications. The PSASG committee is identifying the transmission upgrades in the Puget Sound area that would alleviate many instances of

such congestion (see "NTAC Portfolio 1") that appear to be feasible to complete in the next few years.

3. Other Near-term Measures

- (i) BPA pursues buy/sell arrangements
- (ii) Evaluate certain relevant equipment
- (iii) Evaluate modeling assumptions regarding BPA stability reserve interruption rights
- (iv) BPA pursues non-wires solutions and other reliability measures

BPA TRANSMISSION BUSINESS LINE EXPENSE AND CAPITAL BUDGETS

Simply put, NI congestion can best be relieved by adoption of the near-term and long-term measures described above. BPA Transmission Business Line ("TBL") Expense and Capital Budgets should be established in TBL's ongoing Programs in Review process to accommodate the near-term and long-term measures described above, recognizing that certain of the upgrades will be on facilities not owned by BPA and that the costs of upgrades on facilities not owned by BPA may be borne by others.

BACKGROUND ON NORTHERN INTERTIE CONGESTION

1. BPA Northern Intertie Congestion and PSANI

BPA has experienced a significant increase in transmission congestion on the Northern Intertie ("NI"). As recognized by BPA in its 1991-2000 Transmission System Facilities 10 Year development plan at page 97-1, "Northern Intertie development with B.C. Hydro in Western Washington will stress the transmission system south of Monroe." As a result of this need, BPA has made some upgrades in the Puget Sound area, but these upgrades have not eliminated NI congestion. In addition, NI transmission congestion has become a more significant problem since the Canadian Entitlement return increased to about 1,150 MW in April 2003.¹

In an effort to alleviate NI congestion, BPA has adopted its Puget Sound area and Northern Intertie ("PSANI") curtailment procedures.² Under the PSANI procedures, BPA attempts to curtail certain deliveries to utilities in the Puget Sound area under BPA transmission contracts in order to facilitate BPA's Canadian Entitlement return.³ However, the PSANI procedures have been inefficient and do not satisfy BPA's obligations to its customers. For example, depending on the particular constraint that is causing BPA to experience NI transmission congestion, curtailment of deliveries under various BPA transmission contracts into the Puget Sound area can have little or no effect in alleviating NI congestion.⁴

¹ Under the Columbia River Treaty Entity Agreement on Aspects of the Delivery of the Canadian Entitlement for April 1, 1998 through September 15, 2024 between the Canadian Entity and the United States Entity ("Entity Agreement") in November 1996, 11/14ths of the Canadian entitlement is to be delivered at Blaine (west of the Cascade Mountains) and 3/14ths of the Canadian entitlement is to be delivered at Nelway and Waneta points of delivery (east of the Cascade Mountains).

² Indeed, BPA's PSANI procedures reflect the fact that BPA is unable to meet its transmission obligations without leaning on other transmission systems, because line outages on other transmission systems have already triggered BPA attempts to implement the PSANI procedures.

³ By this document, no entity waives or releases any right or remedy it may have under or arising out of any of its respective transmission contracts and other agreements with BPA or otherwise. By this document, no entity commits to take or not take any action with respect to its transmission system, NI congestion, or any of its transmission contracts or other agreements with BPA.

⁴ For example, PSANI curtailment may require curtailment of three or more megawatts of BPA transmission deliveries in order to reduce one megawatt of NI congestion.

2. BPA's Recognition of Need for Major Transmission Upgrade

In deciding to deliver a large fraction (11/14ths) of the Canadian Entitlement in Western Washington over existing transmission, BPA concluded that such delivery could be made while maintaining the reliability of BPA's system but recognized that construction of a major transmission line across the Cascades would be accelerated to as early as 2005. On November 8, 1996, the United States Entity (the Administrator of the Bonneville Power Administration and the Division Engineer, North Pacific Division of the US Army Corps of Engineers) issued a Record of Decision on the "Delivery of the Canadian Entitlement Final Environmental Impact Statement" ("ROD"). This ROD indicated that the United States Entity had decided to fulfill its obligation under the Columbia River Treaty ("Treaty") by delivering Canada's Entitlement under the Treaty to points on the border between Canada and the United States near Blaine, Washington and Nelway, British Columbia.⁵ The ROD stated as follows:

Delivering the full Entitlement at existing interconnections at those locations [near Blaine, Washington and Nelway, British Columbia] will require no new transmission facilities in the United States or in Canada. However, construction of cross-Cascade transmission in the United States would be accelerated, to as early as 2005. Delivery of the Canadian Entitlement will begin April 1, 1998.

The ROD concluded that such delivery of the full Entitlement⁶ at Blaine and Nelway (Selkirk) was consistent with the "purposes of action", including the following:

Maintain the reliability of BPA's power system. Like all of the alternatives it does not impede BPA's ability to operate the transmission system to meet its obligations to its customers.

(ROD Supplementary Information, p. 12. (Emphasis in original).)

⁵ This ROD replaced the Record of Decision issued March 12, 1996, in which the United States Entity stated that it had decided to fulfill its obligation under the Treaty by delivering Canada's Entitlement under the Treaty to a point on the United States/Canada border near Oliver, British Columbia and indicated that such delivery would require BPA to construct and operate a new single-circuit 500-kV transmission line from Grand Coulee or Chief Joseph Substation to the United States/Canada border, a distance of 135 to 155 kilometers, depending on the alignment selected.

⁶ The ROD indicates that "Canada's half of the downstream power benefits, the Canadian Entitlement (Entitlement), is calculated to be approximately 1,200 to 1,500 megawatts (MW) of capacity and 550 to 600 average megawatts (aMW) of energy."

However, BPA has not yet completed (or even begun) the cross-Cascade transmission line that it anticipated would be needed as early as 2005 when it decided to return most of the Canadian Entitlement at Blaine. Nor has BPA otherwise alleviated NI congestion caused by return of the Canadian entitlement.